

REMARKS

Claims 1-25 are pending in the present application. By this amendment, claims 9-11, 14, 16, and 18 are amended to correct clerical errors, and claims 20-25 are added. The Examiner has rejected claims 1-19 under 35 U.S.C. §102(e) as being anticipated by United States Patent No. 6,108,703 to Leighton et al. (hereinafter "Leighton"). Applicants respectfully request reconsideration of the present claims in view of the following remarks.

§102 Rejections

Claim 1 recites that a system for removing a defective server from a server pool comprises a first server associated with a first and second buddy server such that the first server can transmit ping signals to the first and second buddy servers and receive responsive signals from the first and second buddy servers, and a server database to maintain the associations between the first server and the first and second buddy servers. In response to determining that the first buddy server is down, the first server is operative to send a signal to the server database, and the server database is operative to associate the first server with a third buddy server in response to the signal from the first server.

Leighton does not teach a system as recited in claim 1. On the contrary, Leighton is concerned with a hosting system which includes high-level DNS servers that provide a list of possible low-level DNS servers so that a user's DNS system can contact one of the other low-level DNS servers on the list if the first one contacted is down. This is not analogous to the first server and the first and second buddy servers as recited in claim 1 because Leighton does not teach that the low-level DNS servers are associated with one another or that they are capable of sending signals to other servers and receiving responsive signals from the other servers. Similarly, Leighton discloses that the low-level DNS servers provide a list of names of possible host servers (ghosts) which allows a client browser to contact one of the other ghosts on the list if the first one contacted fails. This also fails to teach the first server and buddy servers as recited in claim 1 because Leighton does not teach that the ghosts on the list are associated with one another or that

the ghosts are capable of sending signals to other ghosts and receiving responsive signals from the other ghosts.

Moreover, Leighton teaches that each of the ghosts has a designated buddy ghost which takes over the load of the ghost if the ghost fails. This is also not analogous to the first server and the first and second buddy servers as recited in claim 1 because each of the ghosts has a single designated buddy ghost instead of a first and second designated buddy ghost and because Leighton fails to disclose that the buddy ghost is operative to send a signal to its ghost and receive a responsive signals from its ghost. Instead, Leighton discloses that when a ghost fails, its load is taken over by its buddy ghost and then balanced by the low-level DNS system, without discussing how it is determined that a ghost is down. It should be noted that as taught by Leighton, the buddy ghost is that which takes over when a failure occurs. On the other hand, the buddy server of the present application is that which is monitored for failure.

As recited in claim 1, a system for removing defective servers also comprises a server database for maintaining the associations between the first server and the first and second buddy servers. With regard to the lists of possible low-level DNS servers and ghosts, Leighton does not teach a server database for maintaining associations between the servers on the respective lists since there is no discussion of associations between the servers on the respective lists. Furthermore, Leighton does not teach a server database to maintain the ghost and buddy ghost designations. When a ghost fails, its load is taken over by its buddy host and then balanced by the low-level DNS system, without discussing if the ghost and buddy ghost designations are maintained in a database.

Leighton also does not teach that in response to a determination that the first buddy server is down, the first server is operative to send a first server down signal to the server database and that in response to the receipt of the first server down signal, the server database is operative to associate the first server with a third buddy server since there is no discussion. In contrast, Leighton teaches that when a ghost fails, its buddy ghost takes over, without discussing if any notification of the failure is made. Moreover, when a ghost fails and its buddy server takes over, Leighton does not discuss if the buddy ghost is associated with another ghost.

For at least these reasons, claim 1 is not anticipated by Leighton. Leighton also does not disclose dependent claims 2-6 because Leighton fails to teach that the buddy ghost is operative to send a signal to its ghost and receive a responsive signal from its ghost and because there is no discussion of a server database to maintain the ghost and buddy ghost designations. Moreover, since claims 2-6 depend from claim 1 and recite additional features, the recitations of claims 2-6 are not anticipated by Leighton. Accordingly, withdrawal of these rejections is respectfully requested.

Claim 7 recites that a computer-implemented method for creating a virtual server ring comprises the step of storing an entry, including a server identification, a first server buddy and a second server buddy, in a server table identifying a plurality of servers in a server pool. Leighton does not teach a computer-implemented method as recited in claim 7. On the contrary, Leighton discloses providing a list of possible servers so that one of the servers on the list can be contacted if the first one contacted is down. However, Leighton fails to teach that the server entries on the list include a server identification, a first server buddy and a second server buddy since there is no discussion of associations between the servers on the list. Moreover, there is no discussion of a server table for identifying each ghost and its buddy ghost.

For at least these reasons, claim 7 is not anticipated by Leighton. Dependent claims 8-16 are also not anticipated by Leighton because Leighton fails to disclose adding a new server to the list of possible servers or to the buddy system and assigning the new server a buddy. Further, since claims 8-16 depend from claim 7 and recite additional features, the recitations of claims 8-16 are not anticipated by Leighton. Accordingly, withdrawal of these rejections is respectfully requested.

Claim 17 recites that a computer-implemented method for monitoring the status of a plurality of servers in a server pool comprises the steps of assigning each of the servers a first and second server buddy within the server pool and causing each of the servers to monitor the status of its first and second server buddy. If a server determines that one of its buddies is down, then the monitoring server is operative to notify a central repository that one of its buddies is down.

Leighton does not disclose a method for monitoring the status of a plurality of servers as recited in claim 17. As discussed above, there is no discussion of associations

between the servers on the list of possible low-level DNS servers or on the list of possible ghosts. Moreover, Leighton teaches that another server on the list is contacted if the first server is down, without discussing whether the servers monitor the status of each other. Leighton also teaches that each of the ghosts has a designated buddy ghost which takes over the load of the ghost if the ghost fails. However, this is not analogous to the method of claim 17 because only one buddy ghost is designated for each ghost, and there is no discussion regarding how it is determined that a ghost is down. Therefore, Leighton does not teach the buddy ghost monitoring its ghost.

Further, Leighton does not disclose causing a monitoring server to notify a central repository that one of its buddies is down if the monitoring server determines that one of its buddies is down. In contrast, Leighton teaches that when a ghost fails, its buddy ghost takes over, without discussing if any notification of the failure is made. Thus, Leighton fails to disclose the buddy ghost notifying a central repository that its ghost is down.

For at least these reasons, claim 17 is not anticipated by Leighton. Since claims 18-19 depend from claim 17 and recite additional features, the recitations of claims 18-19 are not anticipated by Leighton. Accordingly, withdrawal of these rejections is respectfully requested.

New Claims 20-25

New claims 20-25 are directed to further features of Applicants' claimed invention. Support for new claims 20-25 may be found in the specification at page 2, line 30 through page 3, line 4.




CONCLUSION

Applicant asserts that claims 1-25 are in condition for allowance. Furthermore, Applicant asserts that all points of the Office Action have been addressed and requests that the Examiner pass the application including claims 1-24 to allowance. Should the Examiner have any questions, please contact Applicant's undersigned attorney at 404.954.5040.

Respectfully submitted,

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